

**WHAT IS CLAIMED IS:**

Sub 1 a57 1. An intramedullary rod kit for fixation of a distal radius fracture, the  
 2 intramedullary rod kit comprising:  
 3 an intramedullary rod comprising:  
 4 a diaphyseal segment including at least one first mounting section configured to  
 5 receive a tensioning device,  
 6 a middle segment; and  
 7 a joint segment including at least one second mounting section configured to receive  
 8 a tine,  
 9 wherein the diaphyseal segment, the middle segment, and the joint segment define a  
 10 curved configuration that is substantially similar to a curvature of the intramedullary canal of  
 11 a human radius.

1 2. The intramedullary rod kit of claim 1 wherein the joint segment includes an  
 2 opening into a longitudinal channel that extends along a portion of a length of the  
 3 intramedullary rod.

1 3. The intramedullary rod kit of claim 2 wherein the longitudinal channel  
 2 includes a threaded portion.

1 4. The intramedullary rod kit of claim 1 wherein an outer diameter of the  
 2 intramedullary rod varies between approximately 10 mm and 25 mm at the joint segment and  
 3 approximately 2 mm and 9 mm at the diaphyseal segment.

1 5. The intramedullary rod kit of claim 1 wherein an outer diameter of the  
 2 intramedullary rod varies between approximately 12 mm and 15 mm at the joint segment and  
 3 approximately 3 mm and 5 mm at the diaphyseal segment.

1 6. The intramedullary rod kit of claim 1 wherein an outer diameter of the  
 2 intramedullary rod varies between approximately 14 mm at the joint segment and  
 3 approximately 3 mm at the diaphyseal segment.

1           7.       The intramedullary rod kit of claim 1 wherein the joint segment has one of a  
2 round cross-section and an oval cross-section.

1           8.       The intramedullary rod kit of claim 1 wherein the diaphyseal segment has a  
2 round or a generally round cross-section.

1           9.       The intramedullary rod kit of claim 1 wherein a length of the rod is between  
2 approximately 50 mm and 100 mm.

1           10.      The intramedullary rod kit of claim 1 wherein a length of the rod is  
2 approximately 80 mm.

1           11.      The intramedullary rod kit of claim 1 wherein the first mounting section  
2 comprises at least one channel having a threaded inner diameter.

1           12.      The intramedullary rod kit of claim 11 further comprising at least one bone  
2 screw configured to be passed through the first mounting section to mount the intramedullary  
3 rod to a diaphyseal portion of the radius.

1           13.      The intramedullary rod kit of claim 12 wherein the bone screw is one of a  
2 unicortical bone screw and a bicortical bone screw.

1           14.      The intramedullary rod kit of claim 2 further comprising a guide configured to  
2 be mounted to the intramedullary rod and configured to orient drill guides to be collinear  
3 with the first mounting section and the second mounting section of the intramedullary rod.

1           15.      The intramedullary rod kit of claim 14 wherein the guide is mounted to the  
2 intramedullary rod by insertion of a portion of the guide into the longitudinal channel in the  
3 intramedullary rod.

1 16. The intramedullary rod kit of claim 15 wherein the portion of the guide that is  
2 inserted into the longitudinal channel is threadably inserted into the longitudinal channel.

1 17. The intramedullary rod kit of claim 1 wherein the tine comprises a shaft and is  
2 mounted to the rod in the second mounting section.

*Sub 6*  
1 18. The intramedullary rod kit of claim 17 wherein the second mounting section  
2 comprises a channel that includes a threaded portion and the tine includes a first non-  
3 threaded section and a second threaded section that is configured to be threadably mated to  
4 the threaded portion of the channel. *tine*

*MPA*  
1 19. The intramedullary rod kit of claim 17 wherein the second channel includes a  
2 threaded portion and the tine includes a first threaded section and a second threaded section  
3 that is configured to be threadably mated to the threaded portion of the channel. *tine*

1 20. The intramedullary rod kit of claim 19 wherein the first threaded section *bone*  
2 includes threads that are configured to be threadably mated with the bone fragment.

*Sub 7*  
1 21. The intramedullary rod kit of claim 1 wherein the tine comprises an insert *tine*  
2 from which at least one shaft extends and the insert is configured to be mated to the second  
3 mounting section.

1 22. The intramedullary rod kit of claim 21 wherein the shaft is integrally formed *tine*  
2 with the insert.

*Sub 8*  
1 23. The intramedullary rod kit of claim 22 wherein the insert includes a channel *tine*  
2 configured to receive a screw and the intramedullary rod includes a threaded channel  
3 configured to receive the screw.

1           24.    The intramedullary rod kit of claim 23 wherein the opening in the  
 2   intramedullary rod further comprises an opening extending through the intramedullary rod  
 3   and configured to receive the shaft.

1           25.    The intramedullary rod kit of claim 1 further comprising a snap fit tine  
 2   including a head having an opening into which teeth protrude and from which a tine extends  
 3   and wherein the second mounting section includes a channel around at least a portion of the  
 4   circumference of the intramedullary rod and from which teeth protrude and the head is  
 5   configured to be mated with the second mounting section.

1           26.    The intramedullary rod kit of claim 1 further comprising a tensiometer  
 2   mounted to one or more of the intramedullary rod and the tine and being configured to  
 3   measure a tension exerted against one or both of the intramedullary rod and the tine.

1           27.    The intramedullary rod kit of claim 26 further comprising:  
 2   a transmitter for transmitting the measured tension; and  
 3   a receiver for receiving and displaying the measured tension.

1           28.    The intramedullary rod kit of claim 1 further comprising written instructions  
 2   for use.

1           29.    The intramedullary rod kit of claim 1 further comprising an instructional  
 2   video.

1           30.    The intramedullary rod kit of claim 1 further comprising a drill bit configured  
 2   to drill a hole in bone tissue.

Sub 997 1           31.    The intramedullary rod kit of claim 1 wherein the tensioning device comprises  
 2   a tie band fastener including a tie band, a slidable tab, and a stop.

1            32.    The intramedullary rod kit of claim 1 wherein the tensioning device comprises  
2    a molly bolt system that includes a head, a nut, and one or more flexible arms extending  
3    between the head and the nut.

1            33.    The intramedullary rod kit of claim 1 wherein the diaphyseal segment of the  
2    intramedullary rod comprises a dimpled surface.

Sub 107  
2            34.    The intramedullary rod kit of claim 1 wherein the intramedullary rod, the  
             tensioning device, and/or the tine are coated with a therapeutic agent.

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